



Consumer Confidence Report (CCR)

January 1st to December 31st

2011

The Consumer Confidence Report, or CCR, is an annual water quality report that Sundale Mutual Water Company is required to provide to its customers. The CCR helps people make informed choices about the water they drink. The CCR lets people know what contaminants, if any, are in their drinking water, and how these contaminants may affect their health. They also give the system a chance to tell customers what it takes to deliver safe drinking water.

We test the drinking water quality for many constituents as required by state and federal regulations.

This report contains important information about your drinking water. Translate it, or speak with someone who understands it.

Spanish: Este informe contiene información muy importante sobre su agua potable. Tradúzcalo o hable con alguien que lo entienda bien.

Type of water source(s) in use:	Ground Water Wells
Name & location of source(s):	Well 01 and 03 – 55150 70 th St. W., Lancaster, CA 93536
	Well 02, 04 and 06 – 49540 85 th St. W., Lancaster, CA 93536
Drinking Water Source Assessment information:	Well 01 has shown not to be vulnerable to the chemicals detected in the drinking water. At this time, no chemicals have been detected that will affect the quality of the drinking water. The source is considered most vulnerable to the following activities not associated with any detected contaminants: Septic systems – low density (< 1 acre). Well 02 was decommissioned on April 30, 2010.
Assessment for Wells 01 and 02 completed: March 2002	
Assessment for Wells 03 and 04 completed: January 2009	Well 03 & 04 and 06 have shown no vulnerability to the chemicals detected in the drinking water. At this time, no chemicals have been detected that will affect the quality of the drinking water.
Assessment for Wells 06 completed: November 2010	<i>A copy of the complete assessment may be viewed at: Dept. of Public Health, Drinking Water Field Operations Branch, 500 North Central Ave, Suite# 500, Glendale, CA 91203</i>

Time and place of regularly scheduled board meetings for public participation:

6:30 p.m. – Second Thursday of each month at Sundale Mutual Water Co.'s Office, 47707 90th St W, Lancaster, CA 93536

For more information, contact: Vanessa Carrier Phone: (661) 728-0600

TERMS USED IN THIS REPORT

Maximum Contaminant Level (MCL): The highest level of a contaminant that is allowed in drinking water. Primary MCLs are set as close to the PHGs (or MCLGs) as is economically and technologically feasible. Secondary MCLs are set to protect the odor, taste, and appearance of drinking water.

Maximum Contaminant Level Goal (MCLG): The level of a contaminant in drinking water below which there is no known or expected risk to health. MCLGs are set by the U.S. Environmental Protection Agency (USEPA).

Public Health Goal (PHG): The level of a contaminant in drinking water below which there is no known or expected risk to health. PHGs are set by the California Environmental Protection Agency.

Maximum Residual Disinfectant Level (MRDL): The highest level of a disinfectant allowed in drinking water. There is convincing evidence that addition of a disinfectant is necessary for control of microbial contaminants.

Maximum Residual Disinfectant Level Goal (MRDLG): The level of a drinking water disinfectant below which there is no known or expected risk to health. MRDLGs do not reflect the benefits of the use of disinfectants to control microbial contaminants.

Primary Drinking Water Standards (PDWS): MCLs and MRDLs for contaminants that affect health along with their monitoring and reporting requirements, and water treatment requirements.

Secondary Drinking Water Standards (SDWS): MCLs for contaminants that affect taste, odor, or appearance of the drinking water. Contaminants with SDWSs do not affect the health at the MCL levels.

Treatment Technique (TT): A required process intended to reduce the level of a contaminant in drinking water.

Regulatory Action Level (AL): The concentration of a contaminant which, if exceeded, triggers treatment or other requirements that a water system must follow.

Variances and Exemptions: Department permission to exceed an MCL or not comply with a treatment technique under certain conditions.

ND: not detectable at testing limit

ppm: parts per million or milligrams per liter (mg/L)

ppb: parts per billion or micrograms per liter (ug/L)

ppt: parts per trillion or nanograms per liter (ng/L)

ppq: parts per quadrillion or picogram per liter (pg/L)

pCi/L: picocuries per liter (a measure of radiation)

The sources of drinking water (both tap water and bottled water) include rivers, lakes, streams, ponds, reservoirs, springs, and wells. As water travels over the surface of the land or through the ground, it dissolves naturally-occurring minerals and, in some cases, radioactive material, and can pick up substances resulting from the presence of animals or from human activity.

Contaminants that may be present in source water include:

- *Microbial contaminants*, such as viruses and bacteria, that may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife.
- *Inorganic contaminants*, such as salts and metals, that can be naturally-occurring or result from urban stormwater runoff, industrial or domestic wastewater discharges, oil and gas production, mining, or farming.
- *Pesticides and herbicides*, that may come from a variety of sources such as agriculture, urban stormwater runoff, and residential uses.
- *Organic chemical contaminants*, including synthetic and volatile organic chemicals, that are by-products of industrial processes and petroleum production, and can also come from gas stations, urban stormwater runoff, agricultural application, and septic systems.
- *Radioactive contaminants*, that can be naturally-occurring or be the result of oil and gas production and mining activities.

In order to ensure that tap water is safe to drink, the USEPA and the state Department of Public Health (Department) prescribe regulations that limit the amount of certain contaminants in water provided by public water systems. Department regulations also establish limits for contaminants in bottled water that provide the same protection for public health.

Tables 1, 2, 3, 4, 5, 7, and 8 list all of the drinking water contaminants that were detected during the most recent sampling for the constituent. The presence of these contaminants in the water does not necessarily indicate that the water poses a health risk. The Department allows us to monitor for certain contaminants less than once per year because the concentrations of these contaminants do not change frequently. Some of the data, though representative of the water quality, are more than one year old.

TABLE 1 – SAMPLING RESULTS SHOWING THE DETECTION OF COLIFORM BACTERIA

Microbiological Contaminants (complete if bacteria detected)	Highest No. of Detections	No. of months in violation	MCL	MCLG	Typical Source of Bacteria
Total Coliform Bacteria	(In a mo.) 1	1	More than 1 sample in a month with a detection	0	Naturally present in the environment
Fecal Coliform or <i>E. coli</i>	(In the year)	0	A routine sample and a repeat sample detect total coliform and either sample also detects fecal coliform or <i>E. coli</i>	0	Human and animal fecal waste

TABLE 2 – SAMPLING RESULTS SHOWING THE DETECTION OF LEAD AND COPPER

Lead and Copper (complete if lead or copper detected in the last sample set)	No. of samples collected	90 th percentile level detected	No. sites exceeding AL	AL	PHG	Typical Source of Contaminant
Lead (ppb)	20	ND	None	15	0.2	Internal corrosion of household water plumbing systems; discharges from industrial manufacturers; erosion of natural deposits
Copper (ppm)	20	.18	None	1.3	0.3	Internal corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives

TABLE 3 – SAMPLING RESULTS FOR SODIUM AND HARDNESS

Chemical or Constituent (and reporting units)	Sample Date	Level Detected	Range of Detections	MCL	PHG (MCLG)	Typical Source of Contaminant
Sodium (ppm) Wells 1 & 3 Well 4 & 6	5/31/11 12/13/11	41 42	N/A	none	none	Salt present in the water and is generally naturally occurring
Hardness (ppm) Wells 1 & 3 Well 4 & 6	5/31/11 12/13/11	100 190	N/A	none	none	Sum of polyvalent cations present in the water, generally magnesium and calcium, and are usually naturally occurring

*Any violation of an MCL or AL is asterisked. Additional information regarding the violation is provided later in this report.

TABLE 4 – DETECTION OF CONTAMINANTS WITH A PRIMARY DRINKING WATER STANDARD

Chemical or Constituent (and reporting units)	Sample Date	Level Detected	Range of Detections	MCL [MRDL]	PHG (MCLG) [MRDLG]	Typical Source of Contaminant
Nitrate (ppm) Wells 1 & 3 Wells 4 & 6	5/31/11 12/13/11	10 18	N/A N/A	45 45	45 ppm	Runoff and leaching from fertilizer use; leaching from septic tanks and sewage; erosion of natural deposits
Arsenic (ppb) Wells 1 & 3 Wells 4 & 6	5/31/11 12/13/11	4.3 7.5	N/A N/A	10 10	.004 ppb	Erosion of natural deposits; runoff from orchards; glass and electronics production wastes
Fluoride (ppm) Wells 1 & 3 Wells 4 & 6	5/31/11 12/13/11	0.28 0.33	N/A N/A	2.0 2.0	1 ppm	Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer and aluminum factories
Aluminum (ppm) Wells 1 & 3 Wells 4 & 6	5/31/11 12/13/11	ND ND	N/A N/A	1 1	0.6 ppm	Erosion of natural deposits; residue from some surface water treatment processes
Chromium (ppb) Wells 1 & 3 Wells 4 & 6	5/31/11 12/13/11	14 ND	N/A N/A	50 50	(100)	Discharge from steel and pulp mills and chrome plating; erosion of natural deposits

- **Nitrate** – Infants below the age of six months who drink water containing nitrate in excess of the MCL (45 ppm) may quickly become seriously ill and, if untreated, may die because high nitrate levels can interfere with the capacity of the infant's blood to carry oxygen. Symptoms include shortness of breath and blueness of the skin. High nitrate levels may also affect the oxygen-carrying ability of the blood of pregnant women.
- **Arsenic** – While your drinking water meets the federal and state standard for arsenic, it does contain low levels of arsenic. The arsenic standard balances the current understanding of arsenic's possible health effects against the cost of removing arsenic from drinking water. The U.S. Environmental Protection Agency continues to research the health effects of low levels of arsenic, which is a mineral known to cause cancer in humans at high concentrations and is linked to other health effects such as skin damage and circulatory problems.
- **Fluoride** – Some people who drink water containing fluoride in excess of the Federal MCL (4ppm) over many years may get bone disease, including pain and tenderness of the bones. Children who drink water containing fluoride in excess of the State MCL of 2 ppm may get mottled teeth.
- **Aluminum** – Some people who drink water containing aluminum in excess of the MCL over many years may experience short-term gastrointestinal tract effects.

TABLE 5 – DETECTION OF CONTAMINANTS WITH A SECONDARY DRINKING WATER STANDARD

Chemical or Constituent (and reporting units)	Sample Date	Level Detected	Range of Detections	MCL	Typical Source of Contaminant
Copper (ppm) Wells 1 & 3	5/31/11	ND	N/A	1	Internal corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives
Wells 4 & 6	12/13/11	ND	N/A	1	
Chloride (ppm) Wells 1 & 3	5/31/11	30	N/A	500	Runoff/leaching from natural deposits; seawater influence
Wells 4 & 6	12/13/11	54	N/A	500	
Sulfate (ppm) Wells 1 & 3	5/31/11	44	N/A	500	Runoff/leaching from natural deposits; industrial wastes
Wells 4 & 6	12/13/11	45	N/A	500	
Turbidity (NTU) Wells 1 & 3	5/31/11	0.1	N/A	5	Soil Runoff
Wells 4 & 6	12/13/11	0.3	N/A	5	

- **Copper** – An essential nutrient, but some people who drink water containing copper in excess of the MCL over a relatively short amount of time may experience gastrointestinal distress. Some people who drink water containing copper in excess of the action level over many years may suffer liver or kidney damage. People with Wilson's Disease should consult their personal doctor
- **Chloride** – Is not considered a health risk at the level detected
- **Sulfate** – There are no known health effects of sulfate in the levels detected. Persons who drink water with a higher level than the MCL may experience diarrhea.
- **Turbidity** –Has no health effects. Turbidity is a measure of the cloudiness of the water

TABLE 7 – DETECTION OF RADIOLOGICAL CONTAMINANTS

Chemical or Constituent (and reporting units)	Sample Date	Level Detected	Range of Detections	MCL	PHG (MCLG)	Health Effects Language
Gross Alpha Well 2 & 4	March '09, June '09, Sept. '09 Dec. '09	2.1	N/D – 4.9	15	MCLG 0 pCi/L	Certain minerals are radioactive and may emit a form of radiation known as alpha radiation. Some people who drink water containing alpha emitters in excess of the MCL over many years have an increased risk of getting cancer.
Well 6	July '11, Oct. '11	4.45	3.8 – 5.1	15		
Uranium Well 1 & 3	March '09, June '09, Sept. '09 Dec. '09	2.1	1.8 – 2.4	20	PHG 0.43 pCi/L	Some people who drink water containing uranium in excess of the MCL over many years may have kidney problems or an increased risk of getting cancer.
Well 2 & 4	March '09, June '09, Sept. '09 Dec. '09	3.05	N/D – 4.5	20		
Well 6	July '11, Oct. '11	3.55	1.9 – 5.2	20		

*Any violation of an MCL, MRDL, or TT is asterisked. Additional information regarding the violation is provided later in this report.

Additional General Information on Drinking Water

Drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. The presence of contaminants does not necessarily indicate that the water poses a health risk. More information about contaminants and potential health effects can be obtained by calling the USEPA's Safe Drinking Water Hotline (1-800-426-4791).

Some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised persons such as persons with cancer undergoing chemotherapy, persons who have undergone organ transplants, people with HIV/AIDS or other immune system disorders, some elderly, and infants can be particularly at risk from infections. These people should seek advice about drinking water from their health care providers. USEPA/Centers for Disease Control (CDC) guidelines on appropriate means to lessen the risk of infection by *Cryptosporidium* and other microbial contaminants are available from the Safe Drinking Water Hotline (1-800-426-4791).

If present, elevated levels of lead can cause serious health problems for pregnant women and young children. Lead in drinking water is primarily from materials and components associated with service lines and home plumbing. Sundale MWC is responsible for providing high quality drinking water, but cannot control the variety of materials used in plumbing components. When your water has been sitting for several hours, you can minimize the potential for lead exposure by flushing your tap for 30 seconds to 2 minutes before using water for drinking or cooking. If you are concerned about lead in your water, you may wish to have your water tested. Information on lead in drinking water, testing methods, and steps you can take to minimize exposure is available from the Safe Drinking Water Hotline or at <http://www.epa.gov/safewater/lead>

TDS and Specific Conductance – There are no mandatory standard health effects language for these constituents because secondary MCLs are set on the basis of aesthetics

Summary Information for Violation of a MCL, MRDL, AL, TT, or Monitoring and Reporting Requirement

There have been no violations during 2011.